Amendments to the Specification:

[0006] Fig. 1 illustrates a work vehicle in which the invention may be used. The particular work vehicle illustrated in Fig. 1 is an articulated four wheel drive loader having a main vehicle body 10 that includes a front vehicle portion 100 pivotally connected to a rear vehicle portion 200 by vertical pivots 220, the loader being steered by pivoting of the front vehicle portion 100 relative to the rear vehicle portion 200 in a manner well known in the art. The front and rear vehicle portions 100 and 200 are respectively supported on front drive wheels 101 and rear drive wheels 201. An operator's station 210 is provided on the rear vehicle portion 200 and is generally located above the vertical pivots 220. The front vehicle portion 100 includes a mast 120 ~~having a right mast portion 120a and a left mast portion 120b~~. The front and rear drive wheels 101 and 201 propel the vehicle along the ground and are powered in a manner well known in the art.

[0007] Mounted on the front vehicle portion 100 is a boom 110 ~~that is partly formed by first and second boom arms 110a and 110b respectively~~. ~~The first and second boom arms 110a and 110b are connected by a transverse cross tube 111 that is welded to each of the first boom arm 110a and the second boom arm 110b.~~ The rear end of the boom 110 is connected to the mast 120 by transverse pivots 125 and a loader bucket 115 is mounted on the forward end of the boom 110 by transverse pivots 116. The boom 110 is rotated about the transverse pivots 125 by hydraulic lift cylinders (not shown).

[0008] Fig. 2 illustrates an exemplary embodiment of a boom position sensing device 300 of the invention mounted to the mast 120. In this particular embodiment, the sensing device 300 is mounted to a side wall 121 of the mast 120 via screws 301. In this particular embodiment, a spring loaded follower arm 312 is biased against the underside of the ~~first~~ boom ~~arm 110a~~ 110 such that the follower arm 312 exerts pressure against the ~~first~~ boom ~~arm 110a~~110 at all rotational locations. Thus, as shown in Fig. 3 and Fig. 4, the spring loaded follower arm 312 of this embodiment contacts the underside of the boom ~~110a~~ 110 at all points of rotation for the boom 110 without the necessity of a physical attachment to the boom 110 and the accompanying complexities associated with such an attachment.

[0010] The body 309 includes a first body portion 302 and a second body portion

303, the first and second body portions 302 and 303 being rigidly connected to each other via bolts 304a and locknuts 304b. The first body portion 302 includes a L channel portion 302a and a C channel portion 302b. The L channel portion 302a contains two holes 301a for attaching the entire boom position sensing device 300 to the outer wall 121 of the mast 120 via bolts 301. It also contains two holes ~~304a~~ 304c for attaching the first body portion 302 to the second body portion 303 via bolts 304a and locknuts 304b. The C channel portion 302b contains two holes 307a for attaching a potentiometer assembly 306 via locknuts 306e and bolts 306c and a third hole 306j to allow the passage of shaft 316 through the wall of the C channel portion 302b and into the potentiometer 306b. Finally, the C channel portion 302b contains an anchor bolt hole 320a for attaching a spring anchor bolt subassembly 320.

[0011] The second body portion 303 contains two holes ~~304b~~ 315e, 315f for attaching the first body portion 302 to the second body portion 303. The second body portion 303 also contains two additional holes 315a and ~~316a~~315d. Attached to the second body portion at holes 315a, 315d is a stop assembly 315 to restrict rotational motion on the follower arm 312. Press fitted into the hole 316a and toward a first end of a shaft 316 of the follower assembly 310 is a shaft bushing 310a to enhance rotational movement of the shaft and to restrict axial movement of the spring bushing 318. Washers 317 are placed along the shaft 316 on either side of the spring bushing 318, a first end of the follower arm 312 is press fitted onto the shaft at a position next to the spring bushing 318, and a snap ring is assembled to a snap ring groove 316a toward a second end of the shaft 316 to hold all of the washers 317 and the spring bushing 318 in place as well as to restrict axial movement of the shaft 316. A first end of torsional loading spring 314 is anchored to spring anchor 320 while a second end of torsional loading spring 314 constrains and biases the follower arm 312 against the underside of the first boom arm 110a. Attached to a second end of the follower arm 312 is a roller assembly 313 which includes a roller wheel 313a and bushing 313d as well as a roller bolt 313b and a locknut 313c to restrict all motion of the roller wheel 313a and the bushing 313d relative to the roller bolt 313b excepting rotational motion.

[0014] As illustrated in Fig. 8, the detected signal from the boom position detector 300 is transmitted to the chassis control unit 500 via electrical wire or wirelessly through electromagnetic waves. The first rocker switch 601 and the second rocker

switch 602 are activated with a push. Subsequent to activation, the operation of the first rocker switch 601 and/or the second rocker switch 602 sends a momentary signal to the chassis control unit 500 which causes the chassis control unit 500 to record the current signal value from the boom position detector 300. The chassis control unit 500 then compares the recorded signal ~~from the signal recorder 510 and~~to the detected signal from the boom position detector 300 and sends a signal to unlock the control lever 700 from the detent position when the recorded signal is approximately equal to the detected signal. The chassis control unit 500 is capable of storing additional detected signal values, i.e., after storing a value for the first rocker switch 601, it may store an additional value for the second rocker switch 602. Thus, boom kickout values and return to carry values may coexist in the chassis control unit increasing the convenience and ease of operation of the work vehicle.